

Title (en)

NICKEL PARTICLE COMPOSITION, BONDING MATERIAL, AND BONDING METHOD IN WHICH SAID MATERIAL IS USED

Title (de)

NICKELPARTIKELZUSAMMENSETZUNG, BINDEMATERIAL UND BINDEVERFAHREN, IN DEM DAS BESAGTE BINDEMATERIAL VERWENDET WIRD

Title (fr)

COMPOSITION DE PARTICULES DE NICKEL, MATÉRIAU LIANT ET PROCÉDÉ DE LIAISON FAISANT APPEL AUDIT MATÉRIAU

Publication

**EP 3162467 A1 20170503 (EN)**

Application

**EP 15815115 A 20150630**

Priority

- JP 2014135245 A 20140630
- JP 2015068757 W 20150630

Abstract (en)

A nickel particle composition is provided, including: A) a nickel particle having an average particle size in the range of 0.5  $\mu\text{m}$  to 20  $\mu\text{m}$  obtained via a laser diffraction/scattering method and containing 50 wt% or more of a nickel element; B) a nickel fine particle having an average primary particle size in the range of 30 nm to 200 nm observed via a scanning electron microscope and containing 50 wt% or more of a nickel element; and C) an organic binder in the range of 0.1 wt% to 2.5 wt% relative to the total metal content; and the weight ratio of a component A to a component B (component A: component B) is in the range of 30:70 to 70:30.

IPC 8 full level

**B22F 1/052** (2022.01); **B22F 1/107** (2022.01); **B22F 3/02** (2006.01); **B22F 7/04** (2006.01); **B22F 7/08** (2006.01); **B22F 9/24** (2006.01); **B23K 20/00** (2006.01); **B23K 35/22** (2006.01); **B23K 35/30** (2006.01); **C22C 19/03** (2006.01); **H01B 1/00** (2006.01); **H01B 1/22** (2006.01); **H01L 21/52** (2006.01); **H01L 23/373** (2006.01)

CPC (source: EP US)

**B22F 1/052** (2022.01 - EP US); **B22F 1/107** (2022.01 - EP US); **B23K 1/0016** (2013.01 - US); **B23K 20/00** (2013.01 - EP US); **B23K 35/0244** (2013.01 - EP US); **B23K 35/025** (2013.01 - EP US); **B23K 35/22** (2013.01 - US); **B23K 35/30** (2013.01 - US); **B23K 35/3033** (2013.01 - EP US); **B23K 35/3612** (2013.01 - EP US); **B23K 35/3613** (2013.01 - EP US); **B23K 35/3615** (2013.01 - EP US); **H01B 1/22** (2013.01 - EP US); **H01L 21/52** (2013.01 - EP US); **H01L 23/373** (2013.01 - EP US); **H01L 24/29** (2013.01 - US); **H01L 24/32** (2013.01 - US); **H01L 24/83** (2013.01 - US); **B22F 7/08** (2013.01 - EP US); **B22F 9/24** (2013.01 - EP US); **B22F 2301/15** (2013.01 - US); **B22F 2302/45** (2013.01 - US); **B22F 2304/054** (2013.01 - US); **B22F 2304/056** (2013.01 - US); **B22F 2304/10** (2013.01 - US); **C22C 19/03** (2013.01 - EP US); **H01L 2224/29155** (2013.01 - US); **H01L 2224/83065** (2013.01 - US); **H01L 2224/832** (2013.01 - US); **H01L 2924/0002** (2013.01 - EP US); **H01L 2924/20106** (2013.01 - US); **H01L 2924/20107** (2013.01 - US); **H01L 2924/20108** (2013.01 - US); **H01L 2924/20109** (2013.01 - US); **H01L 2924/2011** (2013.01 - US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 3162467 A1 20170503**; **EP 3162467 A4 20180228**; **EP 3162467 B1 20190327**; JP 6734775 B2 20200805; JP WO2016002741 A1 20170427; TW 201606091 A 20160216; TW I652353 B 20190301; US 10207373 B2 20190219; US 2017136585 A1 20170518; WO 2016002741 A1 20160107

DOCDB simple family (application)

**EP 15815115 A 20150630**; JP 2015068757 W 20150630; JP 2016531371 A 20150630; TW 104121039 A 20150630; US 201515323092 A 20150630